APPENDIX D
CIVIL ENGINEERING SUPPORT PLAN (CESP)

1. The single most important process to engineers in the joint arena is the development of the CESP. Joint engineer planning in support of the unified combatant command is considered a function of logistics. CESP development is supported by a software model (known as the CESP Generator (CESPG)) which is run on the Worldwide Military Command and Control System (WWMCCS). It provides macro-level estimates for facility requirements and shortfalls and the associated engineer workload in support of objectives as stated in the CINC's OPLAN. In coordination with JOPES development the JS has developed the Joint Engineer Planning and Execution System (JEPES), which is a personal computer based system to replace the Civil Engineering Support Plan Generator (CESPG).

2. The CESP is a jointly produced document found in Appendix 5 of Annex D (Logistics) of the OPLAN. It is theater-wide oriented and addresses engineer requirements generated by relatively stationary forces. The CESP describes the engineer effort required to support the CINC's intent, to include facility and Class IV requirements, critical engineer tasks necessary for OPLAN execution and an assessment of the engineer capability contained in the OPLAN.

3. The CINC engineer staff promulgates the unified commander's construction policy for a given plan. Using that guidance, each Service component determines its facilities requirements based on the units listed in the time-phased force deployment data (TPFDD), the DOD facility assets available in theater, the wartime host nation support (WHNS) facility assets available (sometimes assumed), any host nation construction capability and the U.S. engineer forces available (either in-country or on the TPFDD) for construction missions.

4. The purpose of the CESPG/JEPES is to provide the engineer planner with an automated capability to assess various engineer COAs in support of CESP development. The input to the model consists of the TPFDD unit data for each of the units requiring facilities, construction priorities for each type of facility, war damage repair estimates, data for deploying theater construction units and their capabilities, facilities components

data (Army Facilities Components System (AFCS) for the Army's standard engineer data) and data on existing facilities (DOD or WHNS) available for use. These data are analyzed for each base complex (made up of one or more geographic locations; called GEOLOC in CESP terminology) in theater. The CESPG/JEPES uses an algorithmic model to process the input, identify the facilities shortfall and, based on engineer construction capability in theater, identify critical engineer shortfalls.

5. The CESP is not just the output from the CESPG/JEPES. The engineer planners analyze the output data and determine the follow-up measures necessary to balance the assets and resources in theater against shortfalls. Some options include deferring some construction, moving units to different bases in theater, scheduling engineer units to arrive earlier, identifying a requirement for more WHNS, and planning to use more contract construction. All but the first and last require intensive coordination with transportation, operations and logistics planners since they require changes to deployment schedules and perhaps the OPLAN. Ultimately, the CESP becomes the theater commander's statement on the OPLAN's requirement for facilities and how that requirement will be met.

6. The CESPG/JEPES are macro-level tools which place the Service engineer planners on a roughly common basis. The model is designed to provide data for an engineer plan assessment on a theater-wide basis; not on a unit or installation basis. From an Army perspective, the planning factors are based on head counts and limited data on facilities requirements and options. The Services have their own systems for contingency planning and execution which conform to their respective doctrines, engineer capabilities, facilities requirements and logistics support systems. The Army's system for that planning is the Theater Construction Management System (TCMS), which integrates AFCS and other Army data bases with commercial software to support Army unit facilities requirements, engineer execution planning, bills of materials (BOM) development, facilities design and project construction management.